

# Sri Datta Budaraju

<https://bsridatta.github.io/>

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## EDUCATION

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- **KTH Royal Institute of Technology** Stockholm, Sweden  
*Master of Science in Computer Science; Track: Machine Learning* Aug. 2018 - Present
- **Amrita Vishwa Vidyapeetham** Coimbatore, India  
*Bachelor of Technology, Computer Science; GPA: 8.77* Aug. 2015 - July 2018
- **FIITJEE** Hyderabad, India  
*Upper Secondary; Grade: A - 95.5%* June. 2013 - June 2015

## EXPERIENCE

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- **KTH Formula Student** Stockholm, Sweden  
*Driverless F1 - Perception Team Lead* Oct. 2018 - Present
  - **Data Collection for Lidar:** Setup tracks for our F1 car using color coded traffic cones and used Velodyne VLP 16 to collect lidar point clouds
  - **Object detection:** Working on squeeze net inspired Deep learning models and clustering techniques to detect cones in the environment in real-time
- **GeeksforGeeks** Coimbatore, India  
*Campus Ambassador* Aug. 2017 - Aug. 2018
  - **Workshops:** Organized hands on workshops for students and trained around 200 fellow students in Android development. Collaborated with the best of them on an official application for the university.
- **Amrita Multidimensional Data Analysis Lab** Coimbatore, India  
*Research Assistant - Collaborated with Dr. Vidhya Balasubramanian, Ph.D., UCI* March 2017 - March 2018
  - **WiFi Experiments:** Setup an environment with 8 WiFi routers and 8 Low energy BLE beacons in university building and studied the WiFi patterns in complex indoor environments as result of and analyzed the trends in 2.4 and 5GHz.
  - **Localisation Algorithms:** Used multi-point triangulation techniques with Dynamic Circle Expansion and Weighted Dynamic Circle Expansion.
  - **Deployment:** Deployed the algorithms on android to scan the dual band and BLE signals. This android app then displays the estimated pinpoint location on a scaled map

## PROJECTS

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- **Accident Anticipation using Deep Learning:** Python, Keras, Google Colabs  
Real time accident detection in video feeds using Hierarchical Recurrent Neural Networks with LSTM cells. Trained on hand sampled clips from YouTube. Part of my bachelor thesis.
- **Safe Rider - Drive Assistant:** Java, Android Studio, Google Maps, Navigations APIs, Firebase  
Road safety application which warns users of road hazards in real-time. Detects hazards using on-board IMU sensors and Crowd-Sources the data to alert other users. Built the whole working application during a 24-hour hackathon.
- **Twitter'e'con - Live Sentiment Analysis:** Python, NLTK, Sci-Kit, Tweepy, TKinter  
Sentimental Analysis tool to analyze real-time trends of keywords in Twitter. Classified live tweets from twitter API using ensemble modelling and implemented live graphical visualizations.
- **Indoor Localization and Navigation:** Python, Java, Android Studio  
Indoor position system that localizes users using dual band WiFi routers and Low Energy Bluetooth Beacons without any manual fingerprinting of the environment.
- **Lego-Bot:** Lego Mindstorms, Lego NXT  
Object detection and avoidance robot using Lego Mindstorms brick, IR, Supersonic, touch, sound sensors to achieve Course correction, Reaction to and Search for sound sources like claps.
- **E-chain for Indian Railways:** Python, Java, Android Studio, Raspberry Pi, Arduino  
An emergency train stopping cum Surveillance system designed for Indian Railways. Awarded as top 30 ideas by Amrita TBI- India's best Technological Business Incubator.
- **Book Crawler:** Java, Android Studio, SQL  
An android application for visualizing the location of a book in the library. Uses the live information of books from the university database and maps their location on a scaled map.

## PROGRAMMING SKILLS

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- **Languages:** Python, Java, C, MATLAB, SQL
- **Libraries:** OpenCV, Keras, Pandas, TensorFlow
- **Software Platforms:** Android, ROS, Ubuntu, Windows, Arduino, Raspberry Pi

## PUBLICATION

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- **AN INVENTIVE AND INNOVATIVE ALTERNATE FOR LEGACY CHAIN PULLING SYSTEM THROUGH INTERNET OF THINGS**

Budaraju Sri Datta, Rama Ganapathy, Sini Raj P, Shriram K Vasudevan, Abhishek SN  
Indonesian Journal Of Electrical Engineering And Computer Science, 6(3), 688-694.

- **AN INNOVATIVE AND INTELLIGENT ROAD SAFETY APPLICATION WITH ROAD QUALITY DETECTION AND EMERGENCY REPORTING SAFE RIDER**

Sucharitha V, Budaraju Sri Datta, Shriram K Vasudevan  
International Journal of Vehicle Autonomous Systems (IJVAS) IJVAS-207128  
Still under review

## ACCOLADES

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- **Hack For India:** 1st in a 24 hours hackathon by Internet and Mobile Association of India
- **Amrita TBI:** Top 30 of 480 national teams - Indias most reputed Technology Business Incubator

## CERTIFICATIONS

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- Neural Networks Deep Learning
- Improving Deep Neural Networks
- Structuring Machine Learning Projects
- Convolutional Neural Networks
- Sequence Models

## LANGUAGES

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- English
- Hindi
- Telugu
- French A2